**REVISION B Questions**

**Question** 1

The trial balance below is for RB1 plc for the y/e 31/12/2021 [in £000s]

|  |  |  |
| --- | --- | --- |
| Purchases and Sales | 650 | 1100 |
| Inventory 1/1/2021 | 100 |  |
| Receivables and payables | 97 | 80 |
| Selling & distribution expenses | 50 |  |
| Rent, rates and insurance | 40 |  |
| Staff salaries | 100 |  |
| Advertising | 20 |  |
| Gas & electricity | 25 |  |
| Audit fee | 10 |  |
| Bad debt | 4 |  |
| Directors’ remuneration | 34 |  |
| Debenture interest | 10 |  |
| Interest on bank loan | 7 |  |
| Cash | 3 |  |
| Bank | 10 |  |
| Premises at cost | 630 |  |
| Equipment at cost | 130 |  |
| Equipment – accumulated depreciation |  | 30 |
| Furniture & fittings at cost | 100 |  |
| Furniture & fittings – accumulated depreciation |  | 60 |
| £1 Ordinary share capital |  | 350 |
| 7% Long term bank loan |  | 100 |
| 10% Debentures |  | 120 |
| Retained profits |  | 200 |
| Interim ordinary dividend | 20 |  |
| Totals | 2040 | 2040 |

**Additional information as at 31/12/2021**:

* Inventory was valued at £110,000.
* Prepayments for: Insurance £5000; distribution expenses £6000;
* Accruals for: Gas & electricity £2000; Audit fee £1000
* The equipment to be depreciated by 20% on reducing balance
* The furniture & fittings to be depreciated by 20% on straight line.
* The directors wish to provide £20,000 for taxation.
* The directors propose a final ordinary dividend of 10p per share.

**Required:**

**a) Income Statement for the year ended 31/12/2021. [20 marks]**

**b) Statement of Financial Position as at 31/12/2021. [20 marks]**

RB1 plc

**Income statement for the y/e 31/12/2021 [in £000s]**

|  |  |  |
| --- | --- | --- |
| **Sales** |  | **1100** |
| **Cost of sales** |  |  |
| **Opening inventory** | **100** |  |
| **Purchases** | **650** |  |
| **Closing inventory** | **[110]** | **[640]** |
| **GP** |  | **460** |
| **Expenses** |  |  |
| Rent, rates and insurance [40 – 5] | **35** |  |
| Selling & distribution expenses [50 – 6] | **44** |  |
| Gas & electricity [25 + 2] | **27** |  |
| Audit fee [10 + 1] | **11** |  |
| Depreciation of equipment [130 – 30] x 0.2 | **20** |  |
| Depreciation of furniture & fittings [100 x 0.2] | **20** |  |
| Staff salaries | 100 |  |
| Advertising | 20 |  |
| Bad debt | 4 |  |
| Directors’ remuneration | 34 |  |
| Debenture interest [10 + 2] | 12 |  |
| Interest on bank loan | 7 | **[334]** |
| PBT |  | **126** |
| CT |  | **[20]** |
| PAT |  | **106** |
| Dividends – Interim  - Final [350 x £0.1] | **20**  **35** | **[55]** |
| Retained profit for the year |  | **51** |
| Retained profit b/f |  | **200** |
| Retained profit c/f |  | **251** |

**RB1 plc**

**SOFP as at 31/12/2021 [in £000s]**

|  |  |  |  |
| --- | --- | --- | --- |
| **Non-current assets** | **Cost** | **Accumulated**  **Depreciation** | **NBV** |
| Premises | **630** | **---** | **630** |
| Equipment | **130** | **30 + 20 = 50** | **80** |
| Furniture & fittings | **100** | **60 + 20 = 80** | **20** |
|  |  |  | **730** |
| **Current assets** |  |  |  |
| **Inventory** | **110** |  |  |
| **Receivables** | **97** |  |  |
| **Prepayments [5 + 6]** | **11** |  |  |
| **Bank** | **10** |  |  |
| **Cash** | **3** |  | **231** |
| **Total assets** |  |  | **961** |
|  |  |  |  |
| **Share capital** |  |  |  |
| **£1 ordinary shares** |  |  | **350** |
| **Reserves** |  |  |  |
| **Retained profit** |  |  | **251** |
| **Shareholders’ funds** |  |  | **601** |
| **Non-current liabilities** |  |  |  |
| 7% Long term bank loan | **100** |  |  |
| 10% Debentures | **120** |  | **220** |
| **Current liabilities** |  |  |  |
| **Accruals [2 + 1 + 2]** | **5** |  |  |
| **Payables** | **80** |  |  |
| **Dividends** | **35** |  |  |
| **CT** | **20** |  | **140** |
| **Shareholders’ funds & liabilities** |  |  | **961** |

**Question 2**.

The marketing department of RB2 Ltd is considering next year’s forecasts for one of its products.

Budgeted production and sales are 25,000 units.

Maximum capacity is 30,000 units.

Selling price per unit is £220

Variable cost per unit is £120

Fixed costs per annum is £1,200,000

**Required:**

**a) Budgeted profit and the margin of safety. [7 marks]**

**Contribution per unit = £ [220 - 120] = £100**

**Budgeted profit = Sales volume x Contribution per unit – Fixed costs**

**= 25,000 x £100 - £1,200,000 = £2,500,000 - £1,200,000 = £1,300,000**

**BEP [units] = Fixed costs / Contribution per unit**

**= £1,200,000 / £100 = 12,000 units**

**Margin of safety = 25,000 – 12,000 = 13,000 units**

**b) The sales volume required to make a profit of £1,400,000 if an**

**additional £100,000 is spent on promotion. [5 marks]**

**Revised fixed costs = £1,200,000 + £100,000 = £1,300,000**

**Contribution required = Profit + Fixed costs**

**= £1,400,000 + £1,300,000 = £2,700,000**

**Sales volume required = Contribution required / Contribution per unit**

**= £2,700,000 / £100 = 27,000 units**

**c) The marketing director suggests the following changes:**

* **Selling price to increase by 10% per unit**
* **Repackaging costs per unit to increase by £5**
* **Fixed costs to increase by 1%**
* **Sell 26,000 units.**

**Calculate the profit, breakeven point and margin of safety for**

**this strategy. Comment on this strategy. [10 marks]**

**Revised selling price per unit = £220 x 1.1 = £242**

**Revised variable cost per unit = £ [120 + 5] = £125**

**Revised fixed costs = £1,200,000 x 1.01 = £1,212,000**

**Revised contribution per unit = £ [242 – 125] = £117**

**Profit = 26,000 x £117 - £1,212,000**

**= £3,042,000 - £1,212,000 = £1,830,000**

**BEP [units] = £1,212,000 / £117 = 10,358.97 = 10,359 units**

**Margin of safety = 26,000 – 10,359 = 15,641 units**

**This strategy has higher profit, lower BEP and a higher margin of safety. So, it is better than the original budget subject to other factors affecting both plans.**

**d) What assumptions apply in all the above analysis. [5 marks]**

* **All costs are analysed into variable and fixed costs**
* **Selling price per unit, variable costs per unit and total fixed costs remain constant within the relevant range of the strategy**
* **Inventory levels remain constant [or sales volume = production volume]**
* **All other factors remain constant within the relevant range**
* **Production-sales mix remains constant.**

**Question 3**.

The latest financials [in £000s] of RB3 Ltd are provided below.

|  |  |  |
| --- | --- | --- |
| Year ended 31st March | 2022 | 2021 |
| Sales | 120 | 105 |
| Gross profit | 50 | 45 |
| Profit before tax | 10 | 12 |

|  |  |  |
| --- | --- | --- |
| SOFP as at 31st March | 2022 | 2021 |
| Inventory | 14 | 10 |
| Receivables | 16 | 21 |
| Bank and cash | 2 | 3 |
| Payables | 12 | 13 |
| Other current liabilities | 15 | 16 |

**Required:**

**a) Calculate the following ratios for both years: [14 marks]**

* **Gross profit ratio**
* **Net profit ratio [using profit before tax]**
* **Current ratio**
* **Quick ratio**
* **Inventory holding period in days**
* **Receivables ratio**
* **Payables ratio**

|  |  |  |
| --- | --- | --- |
| **Ratios** | **2022** | **[12/2021** |
| **GP ratio = [GP / Sales] x 100** | **[50/120] x 100 = 41.7%** | **[45/105] x 100 = 42.86%** |
| **NP ratio = [NP/Sales] x 100** | **[10/120] x 100 = 8.3%** | **[12/105] x 100 = 11.43%** |
| **Current ratio = Current assets/Current liabilities**  **[norm 2]** | **32 / 27 = 1.19** | **34/29 = 1.17** |
| **Quick ratio = Quick assets /Current liabilities [norm 1]** | **18 / 27 = 0.67** | **24/29 = 0.82** |
| **Inventory holding period = [Inventory / Cost of sales] x 365** | **[14 /70] x 365**  **= 73 days** | **[10/60] x 365 = 60.8 = 61 days** |
| **Receivables ratio = [Receivables / Sales] x 365** | **[16/120] x 365 = 48.67**  **= 49 days** | **[21/105] x 365 = 73 days** |
| **Payables ratio = [Payables / Cost of sales] x 365** | **[12 / 70] x 365**  **62.57 = 63 days** | **[13/60] x 365 = 79.08 = 79 days** |

**b) Comment on the performance of the company over the two years using the above ratios [16 marks]**

**Profitability**

**GP ratio has decreased slightly – either selling prices have decreased or purchase prices have increased or it may be effects of both of these.**

**The NP ratio in 2022 has decreased resulting from an increase in expenses.**

**Liquidity**

**The current ratio in both years have remained almost the same and are not maintained at the norm of 2:1**

**The quick ratio has decreased in 2022 and well below the norm of 1:1**

**Efficiency**

**Summary/Recomendations**

**END OF REVISION B QUESTIONS**